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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,765	10/24/2003	David S. Ebbo	MS1-1668US	8944

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EXAMINER	
DAO, THUY CHAN	
ART UNIT	PAPER NUMBER
2192	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,765	EBBO ET AL.	
	Examiner	Art Unit	
	Thuy Dao	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-20 and 35-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-20 and 35-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on January 3, 2008 has been entered.

2. Claims 1, 3-20, and 35-38 have been examined.

Response to Amendments

3. Per Applicants' request, claims 1, 8, and 35-38 have been amended and claims 2 and 21-34 have been canceled.

4. The 35 USC §101 rejection over claims 35-36 is withdrawn in view of Applicants' amendments.

Response to Arguments

5. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 3-20, and 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,389,590 to Miller et al. (art made of record, hereinafter "Miller") in view of "ASP.NET Configuration Files" to Sully (art made of record, hereinafter "Sully").

Claim 1:

Miller discloses *one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:*

accepting a plurality of files, each file of the plurality of files corresponding to a respective file type and including source code (e.g., FIG. 2, Visual Basic VB, Visual C++ VC++, Pascal, col.5: 63 – col.6: 17; col.2: 6-18),

wherein at least two files have different file types; associating a build provider with each file of the plurality of files in accordance with the corresponding respective file type (e.g., FIG. 2, VB Compiler, VC++ Compiler, Pascal Compiler, col.6: 31-56)*;*

maps respective file types of the plurality of file types to respective build providers of a plurality of build providers (e.g., FIG. 2, col.5: 63 – col.6: 30),

ascertaining the source code of each file of the plurality of files via the associated build provider (e.g., col.6: 18-56)*; and*

compiling the ascertained source code of each file of the plurality of files into an assembly (e.g., col.6: 18-30; FIG. 3, col.6: 65 – col.7: 30).

Miller does not explicitly disclose *accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers, wherein a new build provider is registered by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider.*

However, in an analogous art, Sully further discloses *accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers, wherein a new build provider is registered by updating the data structure of the configuration file to include a*

new entry that maps a new file type to the new build provider (e.g., page 6, Configuration files, section Compilation, lines 1-34).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Miller's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Claim 3:

The rejection of claim 1 is incorporated. Miller discloses *direct the device to perform a further action comprising: instantiating the associated build provider for each file of the plurality of files* (e.g., col.4: 14-50).

Claim 4:

The rejection of claim 1 is incorporated. Miller discloses *launching a compiler that performs a compilation on the ascertained source code of each file of the plurality of files to create the assembly* (e.g., col.6: 65 – col.7: 30).

Claim 5:

The rejection of claim 1 is incorporated. Miller discloses *at least a portion of the processor-executable instructions comprise at least part of an operating system* (e.g., col.7: 55 – col.8: 35).

Claim 6:

The rejection of claim 1 is incorporated. Miller discloses *at least a portion of the processor-executable instructions comprise at least part of a program that is capable of establishing a runtime environment* (e.g., col.8: 36-54).

Claim 7:

The rejection of claim 1 is incorporated. Miller discloses *the one or more processor-accessible media comprise at least one of one or more storage media* (e.g., col.7: 3-46).

Claim 8:

Miller discloses *one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:*

maps respective file types of the plurality of file types to respective build providers of a plurality of build providers (e.g., FIG. 2, col.5: 63 – col.6: 30),

creating an associated build provider for each associated file of a the plurality of files, wherein at least two files have different file types; giving each associated build provider a path to its associated file (e.g., FIG. 2, VB Compiler, VC++ Compiler, Pascal Compiler, col.6: 31-56; col.2: 6-18)*;*

requesting each associated build provider to contribute code of its associated file (e.g., FIG. 3, col.6: 65 – col.7: 30; col.6: 18-30)*; and*

compiling the contributed code of each associated file into an assembly (e.g., col.5: 63 – col.6: 17; col.6: 31-56).

Miller does not explicitly disclose *accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers, wherein a new build provider is registered by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider.*

However, in an analogous art, Sully further discloses *accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers, wherein a new build provider is registered by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider* (e.g., page 6, Configuration files, section Compilation, lines 1-34).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Miller's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Claim 9:

The rejection of claim 8 is incorporated. Miller discloses *direct the device to perform a further action comprising: accepting the plurality of files, each file of the plurality of files corresponding to a different file type* (e.g., col.7: 3-46).

Claim 10:

The rejection of claim 9 is incorporated. Miller discloses *the action of creating further comprises an action of: instantiating the associated build provider for each associated file of the plurality of files according to the corresponding different file type of each associated file* (e.g., col.8: 36-54).

Claim 11:

The rejection of claim 8 is incorporated. Miller discloses *direct the device to perform a further action comprising: asking each associated build provider for its usable code language* (e.g., col.7: 55 – col.8: 35).

Claim 12:

The rejection of claim 8 is incorporated. Miller discloses *the processor-executable instructions that, when executed, direct the device to perform a further action comprising: receiving one or more resources from at least one associated build provider* (e.g., col.6: 65 – col.7: 30).

Claim 13:

The rejection of claim 12 is incorporated. Miller discloses *the action of compiling further comprises an action of: compiling the contributed code of each associated file and the one or more resources from at least one associated build provider into the assembly* (e.g., col.4: 14-50).

Claim 14:

The rejection of claim 8 is incorporated. Miller discloses *the action of compiling further comprises an action of: constructing at least one of an object code file, an executable file, a dynamically linked library (DLL) file, and an intermediate language (IL) file* (e.g., col.2: 6-18).

Claim 15:

The rejection of claim 8 is incorporated. Miller discloses *the action of giving further comprises an action of: calling a file path interface on each associated build provider* (e.g., col.5: 6 – col.6: 17).

Claim 16:

The rejection of claim 8 is incorporated. Miller discloses *the action of requesting further comprises an action of: calling a generate code interface on each associated build provider* (e.g., col.6: 31-56).

Claim 17:

The rejection of claim 8 is incorporated. Miller discloses *direct the device to perform a further action comprising: acquiring the contributed code of each associated file via each associated build provider responsive to the action of requesting* (e.g., col.5: 63 – col.6: 30).

Claim 18:

The rejection of claim 17 is incorporated. Miller discloses *the action of acquiring further comprises at least one of the following actions: retrieving the contributed code*

from a stipulated path location; retrieving the contributed code from a created code object; and retrieving the contributed code as a code compile unit (e.g., col.6: 18-30).

Claim 19:

Miller discloses *a device comprising at least one processor; and one or more media including a data structure that is capable of being accessed by the at least one processor, the data structure comprising:*

a first file type and a denotation of a first build provider, the first build provider adapted to handle files of the first file type during a compilation (e.g., FIG. 2, Visual Basic VB as the first file type, col.5: 63—col.6: 17)*;*

a second file type and a denotation of a second build provider, the second build provider adapted to handle files of the second file type during a compilation (e.g., FIG. 2, Visual C++ as the second file type, col.6: 31-56)*; and*

a third file type and a denotation of a third build provider, the third build provider adapted to handle files of the third file type during a compilation (e.g., FIG. 2, Pascal as the third file type, col.5: 63 – col.6: 30; col.2: 6-18).

Miller does not explicitly disclose the remaining limitations. However, in an analogous art, Sully further discloses *the data structure comprising:*

a first entry that includes a first file type and a denotation of a first build provider, the first build provider adapted to handle files of the first file type during a compilation (e.g., page 6, inside open-tag <compilers> and close-tag </compilers>, lines 10-15, adding <compiler language = "Visual Basic", page 6, lines 28-31)*;*

a second entry that includes a second file type and a denotation of a second build provider, the second build provider adapted to handle files of the second file type during a compilation (e.g., page 6, inside open-tag <compilers> and close-tag </compilers>, lines 10-15, adding <compiler language = "C Sharp", page 6, lines 28-31)*; and*

a third entry that includes a third file type and a denotation of a third build provider, the third build provider adapted to handle files of the third file type during a

compilation e.g., page 6, inside open-tag <compilers> and close-tag </compilers>, lines 10-15, adding <compiler language = "JavaScript", page 6, lines 28-31*);*

wherein the first entry maps the first file type to the first built provider, the second entry maps the second file type to the second build provider, and the third entry maps the third file type to the third build provider (e.g., page 6, lines 15-21, attributes "extension" and "type" for each compiler language, and page 5, last two lines).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Miller's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Claim 20:

The rejection of claim 19 is incorporated. Miller discloses *the first build provider is capable of generating source code from files of the first type, the second build provider is capable of generating source code from files of the second type, and the third build provider is capable of generating source code from files of the third type* (e.g., col.6: 31-56).

Claim 35:

Miller discloses *a computer readable storage medium encoding an arrangement for software build extensibility, comprising:*

association means for associating a build provider with each respective file of a plurality of files in accordance with a respective file type that corresponds to the respective file (e.g., FIG. 2, col.5: 63 – col.6: 17)*, and*

ascertainment means for ascertaining code of each respective file of the plurality of files via the associated build provider (e.g., FIG. 2, col.6: 31-56)*; and*

compilation means for compiling the ascertained code of each respective file of the plurality of files into an assembly (e.g., col.6: 18-30; FIG. 3, col.6: 65 – col.7: 30).

Miller does not explicitly discloses *registering a new build provider by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider.*

However, in an analogous art, Sully further discloses a configuration file *registering a new build provider by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider* (e.g., page 6, Configuration files, section Compilation, lines 1-34; between open-tag <compilers> and close-tag </compilers>, adding new "compiler language", "extension", "type" …).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Miller's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Claim 36:

The rejection of claim 35 is incorporated. Miller discloses *contribution means for contributing the code of each respective file of the plurality of files to the ascertainment means as at least one of a code object, a file path location, and a code compile unit* (e.g., col.6: 65 – col.7: 30).

Claim 37:

The rejection of claim 35 is incorporated. Miller discloses *the arrangement comprises at least one device* (e.g., col.7: 55 – col.8: 35).

Claim 38:

The rejection of claim 35 is incorporated. Miller discloses *the arrangement comprises one or more processor-accessible storage media* (e.g., col.8: 36-54).

Conclusion

8. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T Dao/

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192